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EXAMINER				
CHOL, PETER H				
ART UNIT		PAPER NUMBER		
3623				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/722,408

Applicant(s)

SUBRAMANIAM, SUBHASHINI

Examiner

PETER CHOI

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/12/08.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-16, 18-26 and 28-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-16, 18-26 and 28-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 12, 2008 has been entered.
2. Claims 1-6, 8-16, 18-26 and 28-36 remain pending and have been examined on the merits below.

Response to Amendment

3. In the response filed December 12, 2008, Applicant amended the specification, and claims 1, 2, 4, 5, 6, 10, 11, 12, 14, 15, 16, 20, 21, 22, 24, 25, 26, 30, 31, 32, 34, 35, and 36. No claims were canceled or added.
4. In response to the amendments made to claims 2, 12, 22 and 32, the previous rejection raised under 35 USC 112, 1st paragraph is withdrawn.

Response to Arguments

5. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments are

directed towards newly amended subject matter, which has been addressed in the updated rejection below.

Official Notice

6. In the previous Office Action mailed March 6, 2008, notice was taken by the Examiner that certain subject matter is old and well known in the art. Per MPEP 2144.03(c), these statements are taken as admitted prior art because no traversal of this statement was made in the subsequent response. Specifically, it has been taken as prior art that:

- It is old and well known in the workflow management art to be able to indicate a task to be executed either synchronously or asynchronously.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2, 12, 22 and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. The term "many" in claims 2, 12, 22, and 32 is a relative term which renders the claim indefinite. The term "many" is not defined by the claim, the specification does not

provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-4, 8-14, 18-24, and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee et al. (US Patent # 5,774,661) in view of Hansen et al. (US Patent #7,013,316).

As per claim 1, Chatterjee et al. discloses a method of enabling a user to extend a work flow for synchronization/consolidation of data between at least two data sources, said work flow for execution in a meta directory server, said method comprising:

providing a sequence of built-in tasks which together when executed implement said work flow (**col. 3, lines 60-62, Workflow builder 214 is a subsystem that generates links or “maps” to define the steps, rules, and operations of a workflow {a workflow is a sequence of steps and tasks}, a built-in task in said sequence of built-in tasks containing an extension point (Figure 3 depicts a workflow built by a user and comprising a plurality of tasks; col. 5, lines 59-61; col. 6, lines 35-37; col. 7, lines 11-13 and 17-22; col. 13, lines 60-66; Default, built-in, or**

previously-defined tasks, processes, and operations are available for creating workflows. Existing workflows may be modified to create new ones. Decision point objects, or extension points, provide branching from one workflow to another.);

receiving from said user data indicating a custom task associated with said extension point wherein said custom task is separate from said sequence of built-in tasks (col.5, lines 51-62, **Workflow menu is used to set up , define, and verify new workflows. The choices in the workflow menu are New, Open, Import, Export, Define, Verify.. New is used to create a new workflow or operation, Open and Close are used to control access to existing workflows, Import and Export allow a user to store, remove, or add workflows; col. 6, lines 36-37, users are allowed to choose an operation for a step from a list of previously-defined operations) {built-in tasks are kept in a separate list, retrieving built-in tasks is a separate process than defining new tasks}** and contains a program logic specified by said user (col. 3, lines 60-62, col. 3, line 66-col. 4, line 2, col. 5, lines 58-59, col. 6, lines 9-26, 54-56; **Creating or defining a new workflow, or the steps, rules and operations of a workflow, defining steps for a workflow, adding insertion points to a [preexisting] workflow diagram);**

executing said custom task when said extension point is reached during execution of said built-in tasks (col. 7, line 62-col. 8, line 14; **A decision point helps to execute conditional branching for a workflow; col. 6, lines 46-50, A Detour mode allows insertion of a “detour” path to or from a workbasket or operation**

that is temporarily unavailable.. The Flow Control menu provides for insertion of flow control points such as insertion, distribution, and decision; col. 7, lines 8-11, Workflow/Complex Operation, also accessible by button 358, permits insertion of a sub-workflow or complex operation into a current workflow diagram); and

continuing execution of said sequence of built-in tasks from said extension point in said built-in task such that all of said sequence of built-in tasks are executed **(Rule engine 230 then evaluates 506 each condition, and a check 507 is made after each such evaluation to determine whether there are more conditions. When there are no more conditions for the current clause, a check 508 is made to determine whether there are more clauses... After all clauses have been evaluated, processing is done 509) {the workflow process is executed until no clauses or conditions remain}** [Figure 5, Column 8, line 58—Column 9, line 3].

The workflow process discussed by Chatterjee et al. is not explicitly directed towards synchronizing/consolidating data between at least two data sources.

However, Hansen et al. teaches a sequence of tasks for synchronizing multiple databases stored on multiple computing devices, which include the steps of determining whether the databases are already initialized, verify the existence of a database, determine database configuration from a user, and update the server computer database as the user changes their data on the client computer, as well as query the server computer for any changes since the previous synchronization to determine what

data is to be sent from the server computer to the client computer [abstract, Figures 2-6, col. 7, line 57—col. 8, line 18].

Both Hansen et al. and Chatterjee et al. are directed towards executing a sequential process of built-in subtasks for accomplishing a task; thus, they are reasonably pertinent to each other and are analogous references. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Chatterjee et al. to be directed towards synchronizing/consolidating data between at least two data sources, because doing so ensures that a plurality of remotely located users are making decisions based on the same, consistent data, thereby reducing mistakes and errors in the decision-making process.

As per claim 2, Chatterjee et al. teaches the method of claim 1 wherein another program logic constituting said sequence of built-in tasks is used by many users including said user and also that each user can provide custom extensions to said workflow by providing a corresponding instance of said program logic for said custom task (col. 7, lines 8-19, **Workflow/Complex Operation**, also accessible by button 358, **permits insertion of a sub-workflow or complex operation into a current workflow diagram. By defining subworkflows and complex operations, design of future workflow is simplified by re-use of such sub-workflows and complex operations...** The Tools menu permits selection of commonly used operations for insertion in a workflow, based on previously-created definitions) {the sequence of

tasks in a workflow or subworkflow may be stored and reused, presumably in other workflow processes and by other users of the enterprise}.

Chatterjee et al. does not expressly disclose wherein said sequence of built-in tasks are provided by a designer implementing said meta directory, wherein said designer is different from said user. However, Examiner respectfully submits that the title of the user providing the tasks (i.e., designer versus non-designer) is considered non-functional descriptive data. Accordingly, these differences are only found in the non-functional descriptive material and are not functionally involved in the steps recited nor do they alter the recited structural elements. The recited method steps would be performed the same regardless of the specific data. Further, the structural elements remain the same regardless of the specific data. Thus, this descriptive material will not distinguish the claimed invention from the prior art in terms of patentability, *see In re Gulack*, 703 F.2d 1381, 1385, 217 USPQ 401, 404 (Fed. Cir. 1983); *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994); *MPEP*, 2106.

Further, Chatterjee et al. allows users to retrieve commonly used operations for insertion in a workflow based on previously-created definitions, and also allows users to choose an operation for a step from a list of previously-defined operations [col. 6, lines 35-37, col. 7, lines 17-19]. As the operations retrieved and used have been previously defined and made available to the user, these include operations previously defined by the user, and operations not defined by the user and instead defined by another user.

Thus, Chatterjee et al. provides for workflow operations designed by someone other than the user.

As per claim 3, Chatterjee et al. discloses wherein said custom task contains an another extension point, said method further comprises receiving from said user data indicating an another custom task to be executed when said another extension point is reached during execution of said custom task (**col. 7, lines 57-62, Execution of “data frm entry” object 311 provides the user with a prompt to enter data; col. 8, lines data entry object 313 prompts the user for further input, decision point object 314 provides routing in response to the input data, and as a result the workflow either progresses to connection object Accepted PO Path 317, indicating acceptance, or to work basket object 315, indicating rejection; col. 8, lines 50-67; Figures 3 and 5; A workflow can have more than one decision points for conditional branching.**).

As per claim 4, Chatterjee et al. discloses further comprising:

determining a corresponding set of extension points available in each of said sequence of built-in tasks, displaying each of said set of extension points associated with a corresponding one of said sequence of built-in tasks, displaying said custom task and said another custom task and enabling said user to specify said custom task associated with said extension point, and said another custom task associated with said another extension point (**col. 8, lines 15-41; Figures 3-4; A workflow builder display**

allows a user to customize a workflow by inserting decision points, where the decision points come from a set of predefined conditional statements.).

As per claim 8, Chatterjee et al. discloses wherein at least one of said two data sources comprises a relational database **(item 318 in Figure 3).**

As per claim 9, Chatterjee et al. discloses further comprising providing an utility to indicate that a specific one of said extension points is reached **(col. 8, line 50-col. 9, line 13; Figure 5; Conditional statements provide a check for additional conditions, clauses or other objects.).**

As per claim 10, Chatterjee et al. discloses further comprising providing an utility in each of said sequence of built-in tasks and said custom task, wherein said utility indicates extension points available in a corresponding task **(col. 8, line 50-col. 9, line 13; Figure 5; Conditional statements provide a check for additional conditions, clauses or other objects.).**

Claims 11-14, 18-24, and 28-34 recite subject matter similar to that already rejected above.

Therefore, claims 11, 21, and 31 are rejected on the same basis as claim 1 above.

Similarly, claims 12, 22, and 32 are rejected on the same basis as claim 2.

Claims 13, 23 and 33 are rejected on the same basis as claim 3, and claims 14, 24 and 34 are rejected on the same basis as claim 4.

Claims 18-20 and 28-30 are rejected on the same basis as claims 8-10 above.

12. Claims 5-6, 15-16, 25-26, and 35-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee et al. (US Patent # 5,774,661), in view of Hansen et al. (US Patent #7,013,316), as applied to claims 1, 11, 21 and 31 above, and further in view of Randell (US Patent #5,745,687).

As per claim 5, Chatterjee et al. teaches enabling said user to specify that said custom task is to be executed synchronously, wherein said custom task is executed in a synchronous manner (**Workflow Stop, also accessible by button 352, inserts a stop point in a workflow**) [col. 6, lines 56-58].

Further, it has been admitted as prior art, as a result of untimely/improperly challenged Official Notice, that it is old and well known in the workflow management art to be able to indicate a task to be executed either synchronously or asynchronously. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Chatterjee et al. to enable a user to specify a task to be executed synchronously or asynchronously as doing so provides the user with more control over when and how the task is executed, thereby enhancing the workflow design features offered in the workflow builder of Chatterjee et al.

Chatterjee et al. does not explicitly disclose that:

execution of said sequence of built-in tasks is resumed after completion of execution of said custom task such that said custom task is executed in a synchronous manner.

However, Randell teaches resuming a workflow sequence after completing execution of another task **(The node 314 could wait for all previous nodes to complete, or any combination to complete, before proceeding; An additional features contained in the Distributed Workflow system is manual coordination of a process to suspend the processing of an instance, resume processing of the instance from the point where it was suspended; The RESUME process allows a suspended instance to continue processing. Once RESUMEd, the coordinator will apply all the operations that were suspended while the instance was suspended, by placing the suspended nodes in the work queue)** [col. 8, lines 22-24, col. 16, lines 16-18, 57-63].

Both Chatterjee et al. and Randell are directed towards defining and executing workflow processes; thus, they are analogous references as they are directed toward a similar field of endeavor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Chatterjee et al. to include the step of synchronous execution of custom tasks and built-in tasks, because doing so

would enhance the features in the Flow Control menu to permit insertion, distribution, and stopping points of a workflow to execute custom tasks required as input for work flow processing, as contemplated by Chatterjee et al. [col. 6, line 49 – col. 8, line 14].

As per claim 6, Chatterjee et al. teaches enabling said user to specify that said custom task is to be executed asynchronously (**Distribution points allows several users to work on an item in parallel**) [col. 6, lines 61-62].

Further, it has been admitted as prior art, as a result of untimely/improperly challenged Official Notice, that it is old and well known in the workflow management art to be able to indicate a task to be executed either synchronously or asynchronously. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Chatterjee et al. to enable a user to specify a task to be executed synchronously or asynchronously as doing so provides the user with more control over when and how the task is executed, thereby enhancing the workflow design features offered in the workflow builder of Chatterjee et al.

While Chatterjee et al. discusses asynchronous execution of a task, Chatterjee et al. does not explicitly disclose that multiple tasks are executed in an asynchronous manner.

However, Randell teaches multiple execution of tasks within a workflow by using performing the tasks in parallel (**Routing node 306 splits the specification created by work node 304 to allow three additional work nodes to perform parallel operations within the procedure**) {**a task is divided into multiple jobs that are executed in parallel**} [col. 7, lines 46-48].

Both Chatterjee et al. and Randell are directed towards defining and executing workflow processes; thus, they are analogous references as they are directed toward a similar field of endeavor. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the teachings of Chatterjee et al. to include the step of asynchronous execution of custom tasks and built-in tasks, because doing so would enhance the ability of Chatterjee et al. to perform parallel execution of tasks at distribution points of the workflow, as contemplated [col. 6, lines 61-62]

Claims 15-16, 25-26, and 35-36 recite subject matter similar to that already rejected above. Therefore, claims 15-16, 25-26, and 35-36 are rejected on the same basis as claims 5-6 above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bacon et al. (US Patent #6,697,784) teaches a workflow management system with personal subflows. Upon determining that an activity may be started, the engine routes a given work item to the appropriate actors, such as agents, clients or possibly a work group where an activity is performed. For certain types of activity interrelationships, the engine may clone a work item and route cloned work items to several actors.

Lee et al. (USPGPub 2003/0023773) teaches a method for performing workflow related operations. If a work item currently accessed in the workflow is locked by another user at that node, then the workflow server waits for the lock on the work item to be released. If the current node is the stop node, then control ends, otherwise the workflow server determines from the path from the current node the next node in the work flow. Control then proceeds to process the next node. Some methods of the Workflow class include terminate, suspend, resume and add.

Hundt et al. (US Patent #6,918,110) teaches dynamic instrumentation of an executable application program. When a breakpoint is encountered in the executable application, control is returned to the instrumentation process. When the end of the executable application is reached, control is returned to the instrumentation process. Control is transferred from the dynamic instrumentation code to the executable application code to execute the injected code. Control returns to the dynamic

instrumentation code, which then identifies functions in the executable application and inserts breakpoints.

Boothby (US Patent #7,013,315) teaches a method of synchronizing at least a first and a second database.

Holenstein et al. (US Patent #7,003,531) teaches synchronization of plurality databases in a database replication system.

Ahlgren et al. (US Patent #6,968,209) teaches a method for synchronizing databases in portable communication systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PETER CHOI whose telephone number is (571)272-6971. The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 15, 2009

/P. C./
Examiner, Art Unit 3623

/Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623